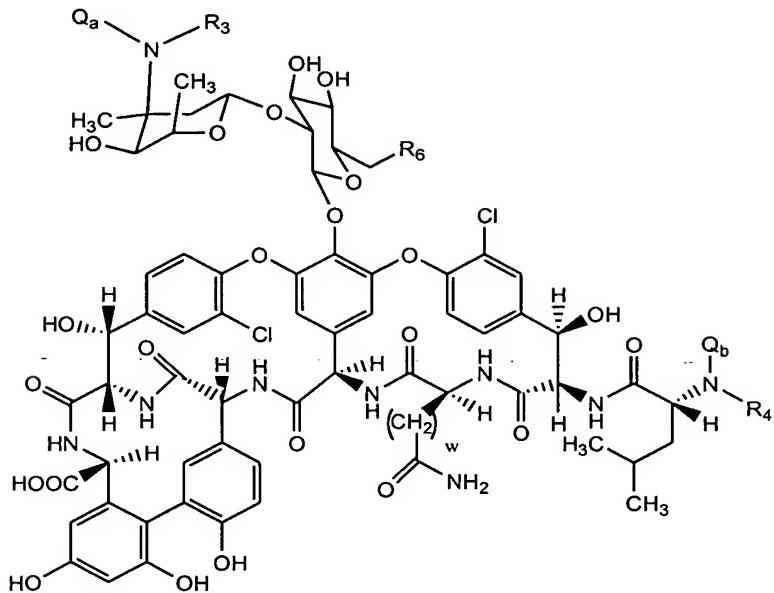


We Claim:

1. A compound of the formula (I)



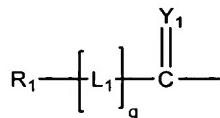
wherein:

5 R₃-R₅ are each independently selected from among hydrogen, C₁₋₆ alkyls, C₃₋₁₂ branched alkyls, C₃₋₈ cycloalkyls, C₁₋₆ substituted alkyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, C₁₋₆ alkenyls, C₃₋₁₂ branched alkenyls, C₁₋₆ alkynyls, C₃₋₁₂ branched alkynyls, C₁₋₆ heteroalkyls, substituted C₁₋₆ heteroalkyls, C₁₋₆ alkoxyalkyl, phenoxyalkyl and C₁₋₆ heteroalkoxys;

10 R₆ is OH, NH-aryl, NH-aralkyl, or NH-C₁₋₁₂ alkyl,

w is 1 or 2;

Q_a is H or a residue of the formula:



wherein:

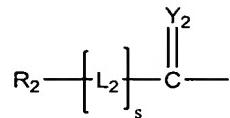
15 R₁ is a polymer residue;

Y₁ is O, S or NR₅; and

L₁ is a hydrolysis resistant bifunctional linker;

q is 0 or a positive integer; and

Q_b is H or a residue of the formula:



wherein:

R_2 is a polymer residue;

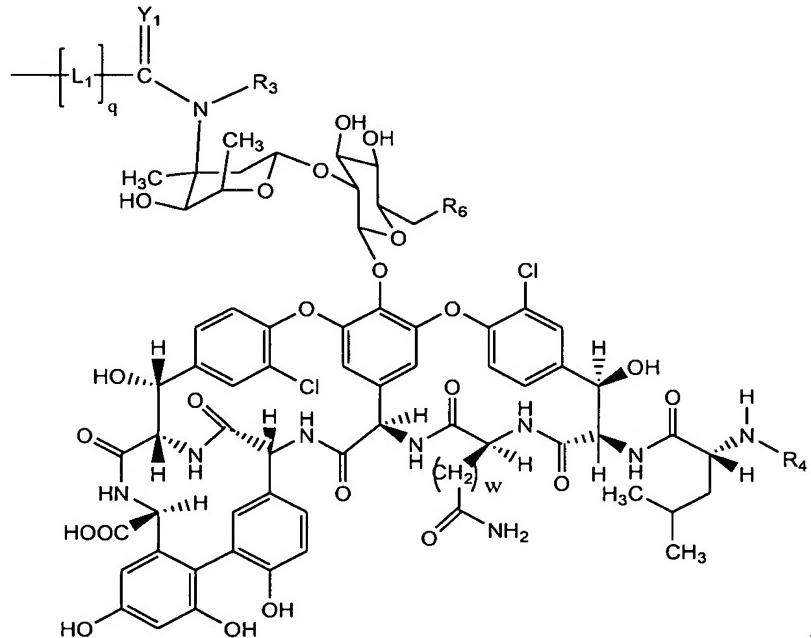
5 Y_2 is O, S or NR_5 ; and

L_2 is a hydrolysis resistant bifunctional linker;

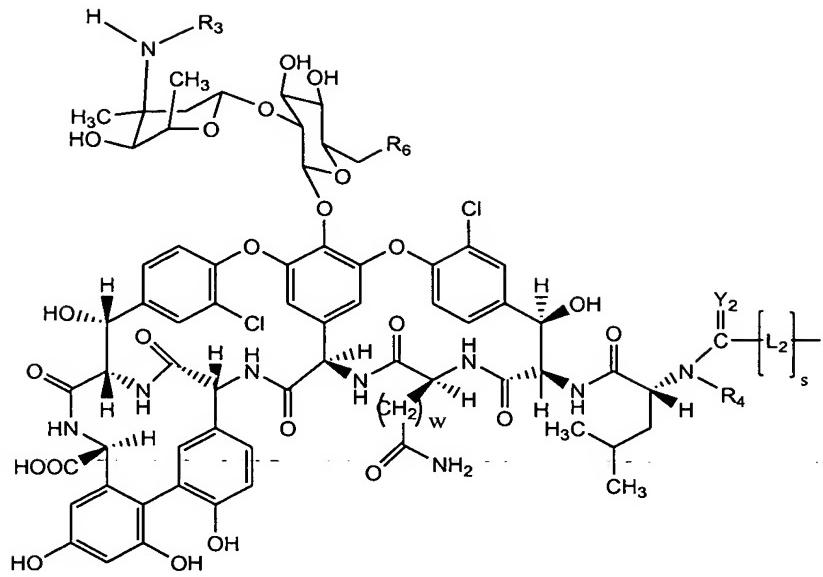
s is 0 or a positive integer;

provided that Q_a and Q_b are both not simultaneously H.

- 10 2. The compound of claim 1 wherein R_1 further comprises a capping group J selected from the group consisting of OH, NH₂, SH, CO₂H, C₁₋₆ alkyl moieties, and a compound of the formula:



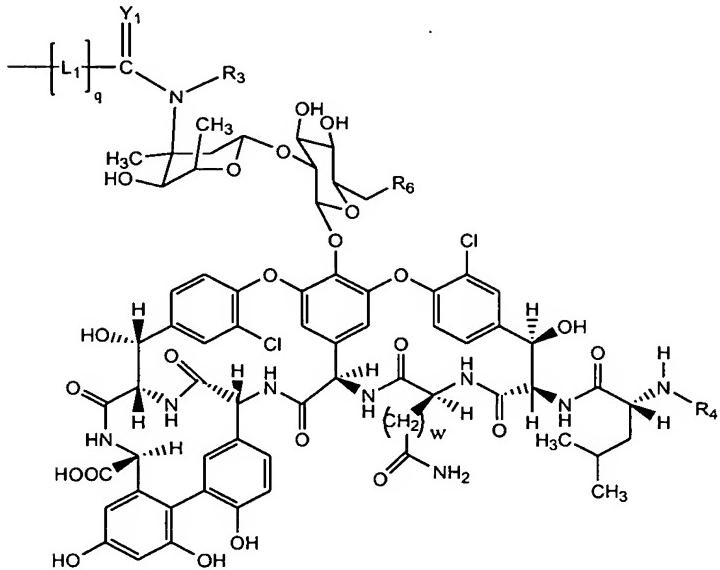
- 15 3. The compound of claim 1 wherein R_2 further comprises a capping group J selected from the group consisting of OH, NH₂, SH, CO₂H, C₁₋₆ alkyl moieties, and a compound of the formula:



4. A compound of claim 2 of the formula:

(i)- R_1 -(i)

5 wherein (i) is:



wherein:

Y_1 is O;

L_1 is a hydrolysis resistant bifunctional linker;

R₃ and R₄ are each independently hydrogen or CH₃;

R₆ is OH or NH-aryl;

q is 0-2; and

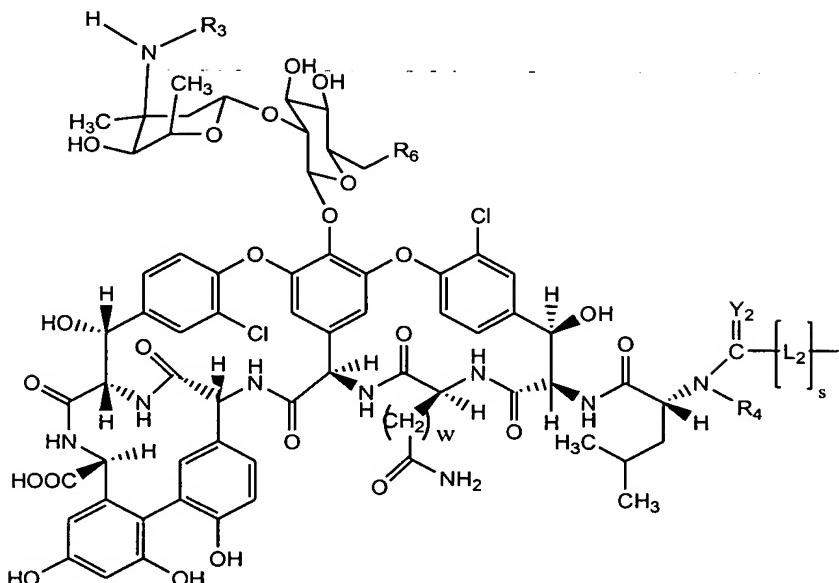
w is 1.

5

5. A compound of claim 2 of the formula:

(ii)-R₂-(ii)

wherein (ii) is:



10 wherein:

Y, is O;

L_2 is a hydrolysis resistant bifunctional linker

R_3 and R_4 are each independently hydrogen or CH_3 ;

R₆ is OH or NH-aryl;

15 s is 0-2; and

w is 1.

6. The compound of claim 1 wherein:

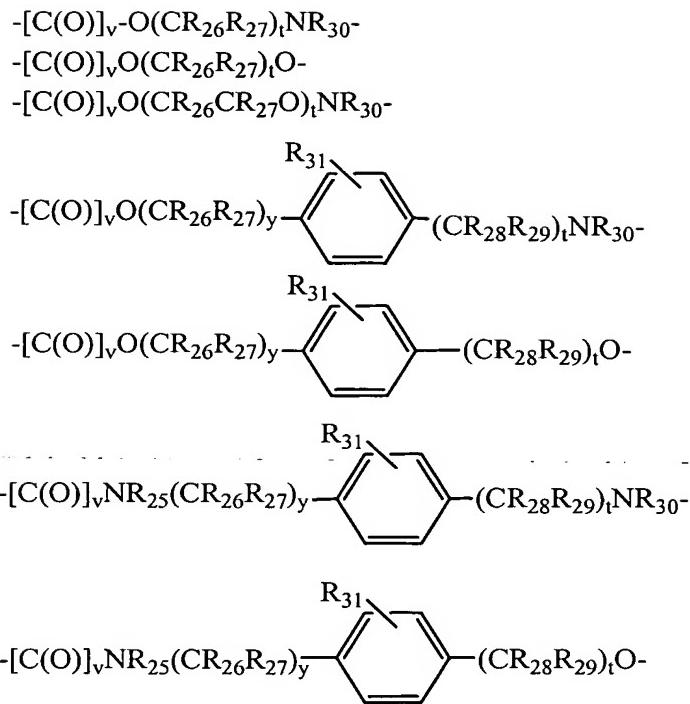
Y_1 and Y_2 are independently O;

20 R₃ and R₄ are each independently hydrogen or CH₃;

R₆ is OH or NH-aryl;
q and s are independently 0-2; and
w is 1.

5 7. The compound of claim 1 wherein L₁₋₃ are bifunctional linkers
independently selected from the group consisting of amino acid residues and

-[C(O)]_vNR₂₅(CR₂₆R₂₇)_t-
-[C(O)]_v(CR₂₆R₂₇)_t-
-[C(O)]_vNR₂₅(CR₂₆R₂₇O)_t-
-[C(O)]_vNR₂₅(CR₂₆R₂₇)_t-
-[C(O)]_vNR₂₅(CR₂₆R₂₇O)_t(CR₂₈R₂₉)_yO-
-[C(O)]_vNR₂₅(CR₂₆R₂₇O)_t(CR₂₈R₂₉)_y-
-[C(O)]_vNR₂₅(CR₂₆R₂₇)_tO-
-[C(O)]_vNR₂₅(CR₂₆R₂₇)_t(CR₂₈CR₂₉O)_yNR₃₀-
-[C(O)]_vO(CR₂₆R₂₇)_tNR₃₀-
-[C(O)]_vO(CR₂₆R₂₇)_tO-
-[C(O)]_vNR₂₅(CR₂₆R₂₇)_tNR₃₀-
-[C(O)]_vNR₂₅(CR₂₆R₂₇)_t(CR₂₈CR₂₉O)_y-
-[C(O)]_vNR₂₅(CR₂₆CR₂₇O)_t-
-[C(O)]_vNR₂₅(CR₂₆CR₂₇O)_t(CR₂₈R₂₉)_yNR₃₀-
-[C(O)]_vNR₂₅(CR₂₆CR₂₇O)_t-
-[C(O)]_vO(CR₂₆R₂₇)_tNR₃₀-



wherein:

- R₂₅-R₃₀ are independently selected from the group consisting of hydrogen, C₁₋₆ alkyls, C₂₋₆ alkenyls, C₂₋₆ alkynyls, C₃₋₁₉ branched alkyls, C₃₋₈ cycloalkyls,
- 5 C₁₋₆ substituted alkyls, C₂₋₆ substituted alkenyls, C₂₋₆ substituted alkynyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, C₁₋₆ heteroalkyls, substituted C₁₋₆ hetero-alkyls, C₁₋₆ alkoxyalkyl, phenoxyalkyl and C₁₋₆ hetero-alkoxys;
- R₃₁ is selected from the group consisting of hydrogen, C₁₋₆ alkyls,
- 10 C₂₋₆ alkenyls, C₂₋₆ alkynyls, C₃₋₁₉ branched alkyls, C₃₋₈ cycloalkyls, C₁₋₆ substituted alkyls, C₂₋₆ substituted alkenyls, C₂₋₆ substituted alkynyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, C₁₋₆ heteroalkyls, substituted C₁₋₆ heteroalkyls, C₁₋₆ alkoxyalkyl, phenoxyalkyl and C₁₋₆ heteroalkoxys, NO₂, haloalkyl and halogen;
- 15 t and y are individually selected positive integers, and
v is 0 or 1.

8. The compound of claim 7 wherein the amino acid residue is selected from the group consisting of alanine, valine, leucine, isoleucine, glycine, serine, threonine, methionine, cysteine, phenylalanine, tyrosine, tryptophan, aspartic acid, glutamic acid, lysine, arginine, histidine and proline.

5

9. The compound of claim 1, wherein R₁ and R₂ independently comprise a linear, terminally branched or multi-armed polyalkylene oxide residue.

10. The compound of claim 9, wherein said polyalkylene oxide residue
10 comprises polyethylene glycol:

11. The compound of claim 9, wherein said linear polyalkylene oxide residue is selected from the group consisting of:

15 A- O-(CH₂CH₂O)_x-
 A-O-(CH₂CH₂O)_x-CH₂C(O)-O-,
 A-O-(CH₂CH₂O)_x-CH₂CH₂ NR₇-,
 A-O-(CH₂CH₂O)_x-CH₂CH₂ SH,
 -O-C(O)CH₂-O-(CH₂CH₂O)_x-CH₂C(O)-O-,
 -NR₇CH₂CH₂-O-(CH₂CH₂O)_x-CH₂CH₂ NR₇-,
 -SHCH₂CH₂-O-(CH₂CH₂O)_x-CH₂CH₂ SH-,

wherein

20 A is a capping group;
 R₇ is selected from that which defines R₃, and
 x is the degree of polymerization.

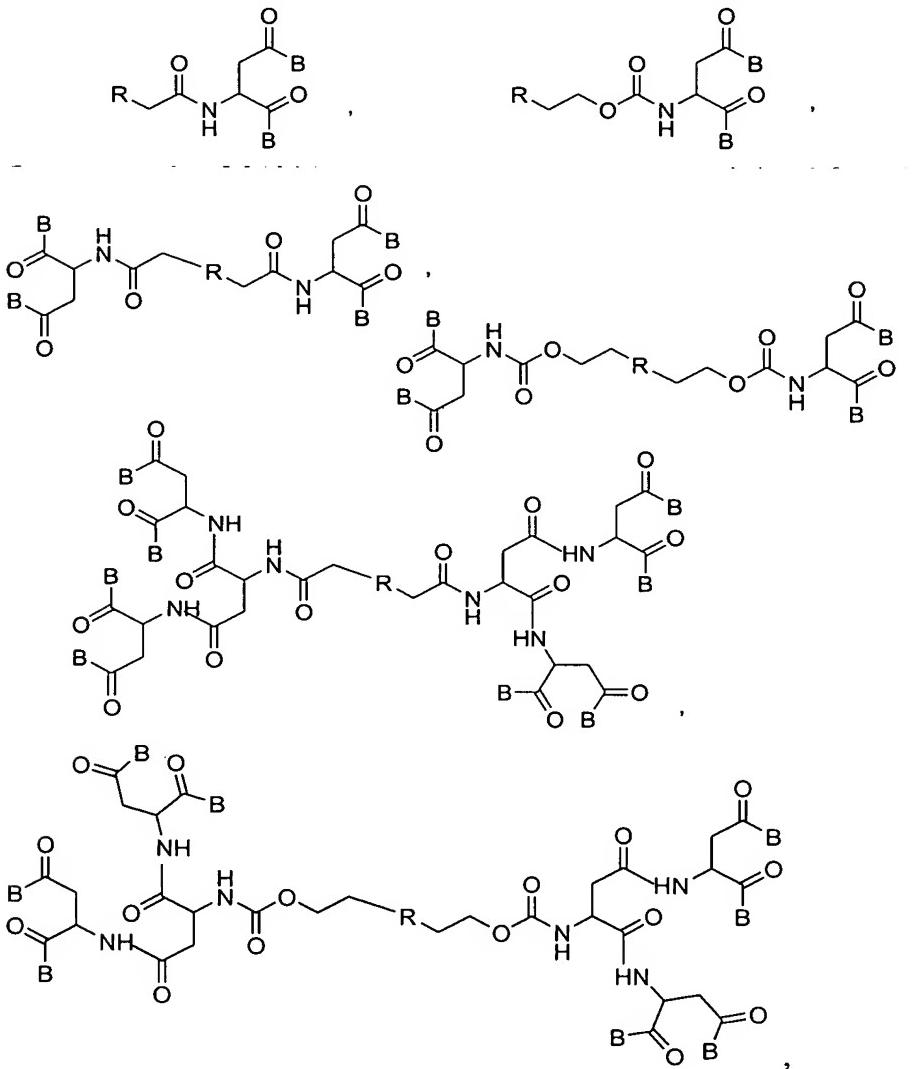
12. The compound of claim 11 wherein said polyalkylene oxide residue has a
25 total number average molecular weight of from about 5,000 to about 100,000
daltons.

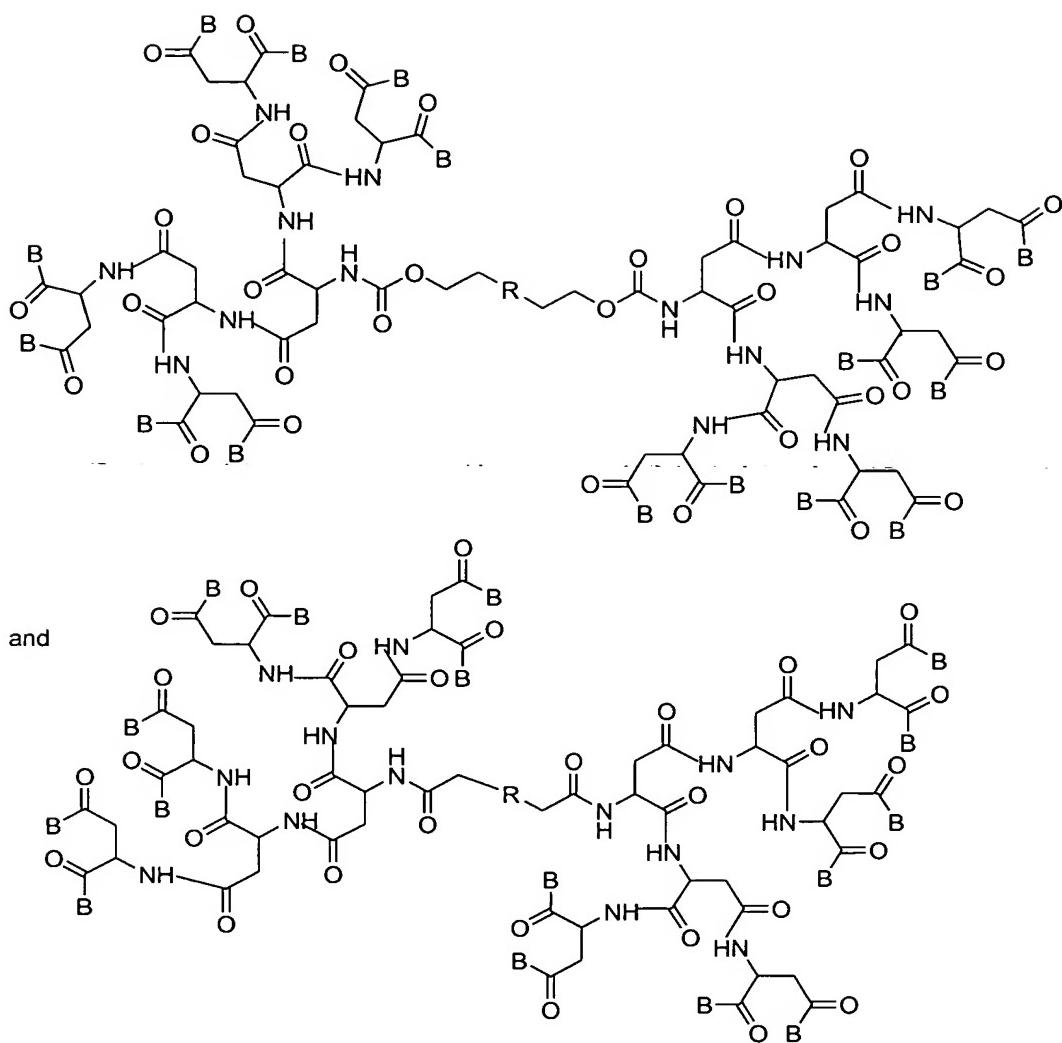
13. The compound of claim 11, wherein said polyalkylene oxide residue has a
total number average molecular weight of from about 10,000 to about 80,000
30 daltons.

14. The compound of claim 11, wherein said polyalkylene oxide residue has a total number average molecular weight of from about 20,000 to about 40,000 daltons.

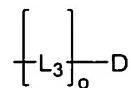
5

15. The compound of claim 9, selected from the group consisting of:





where R is a linear polymeric residue such as those described above for R_1
 5 and R_2 , and B is a moiety of the formula:



wherein,

L_3 is the same as that which describes L_1 and L_2 ;

o is 0 or 1, and

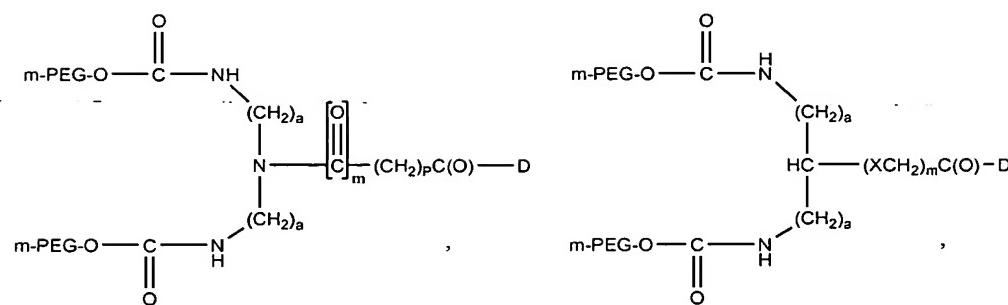
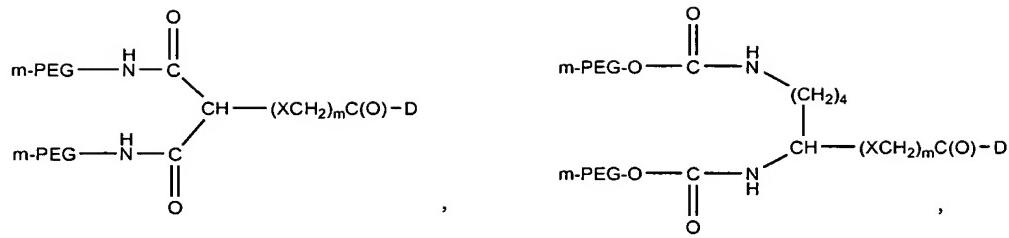
D is a moiety of the formula V_a or V_b .

16. The compound of claim 15, wherein said polyalkylene oxide residue comprises polyethylene glycol.

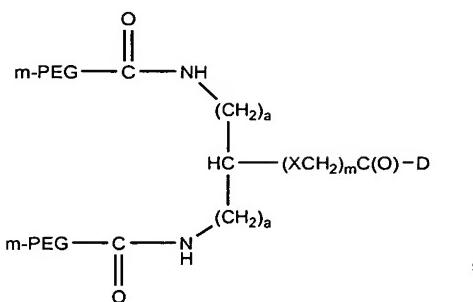
17. The compound of claim 16, wherein said polyethylene glycol has a number
5 average molecular weight of from about 2,000 to about 100,000 daltons.

18. The compound of claim 16, wherein said polyethylene glycol has a number average molecular weight of from about 20,000 to about 40,000 daltons.

10 19. The compound of claim 9, selected from the group consisting of:



and



wherein

(a) is an integer of from about 1 to about 5;

X is O, NR₈, S, SO or SO₂; where R₈ is H, C₁₋₈ alkyl, C₁₋₈ branched

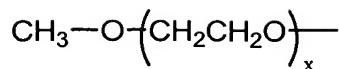
5 alkyl, C₁₋₈ substituted alkyl, aryl or aralkyl;

(m) is 0 or 1;

(p) is a positive integer;

D is a moiety of the formula Va or Vb, and

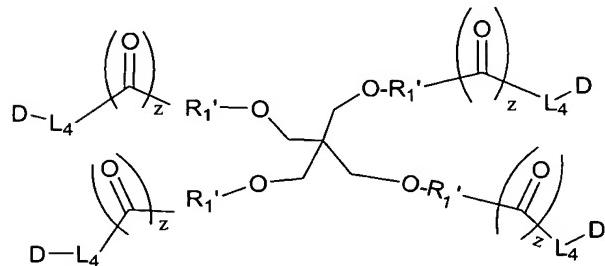
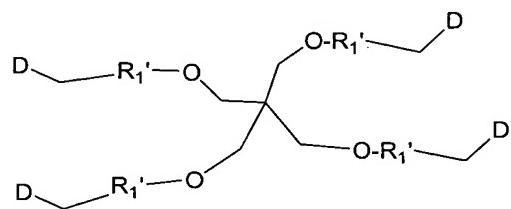
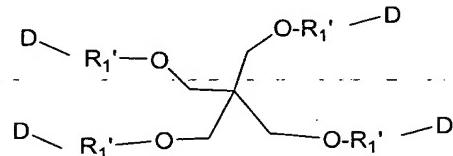
mPEG is



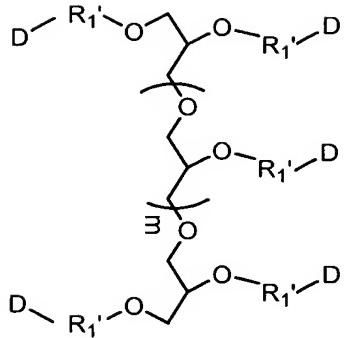
wherein x is an integer from about 10 to about 2,300, and has a number average molecular weight of from about 2,000 to about 100,000 daltons.

20. The compound of claim 19, wherein mPEG has a number average molecular weight of from about 20,000 to about 40,000 daltons.

21. The compound of claim 1, selected from the group consisting of the formulas:



and



wherein,

m is 0 - 4;

z is 0 or 1;

L_4 is the same as that which defines L_{1-3} ;

D is a moiety of the formula V_a or V_b ;

R_1' =

$-(CH_2CH_2O)_x-$;

$-(CH_2CH_2O)_x-CH_2C(O)-$;

$-(CH_2CH_2O)_x-CH_2CH_2NR_7^-$, and

$-(CH_2CH_2O)_x-CH_2CH_2SH-$;

where x is a positive integer ;

R_{13-24} are independently selected from among hydrogen, C₁₋₆ alkyls,

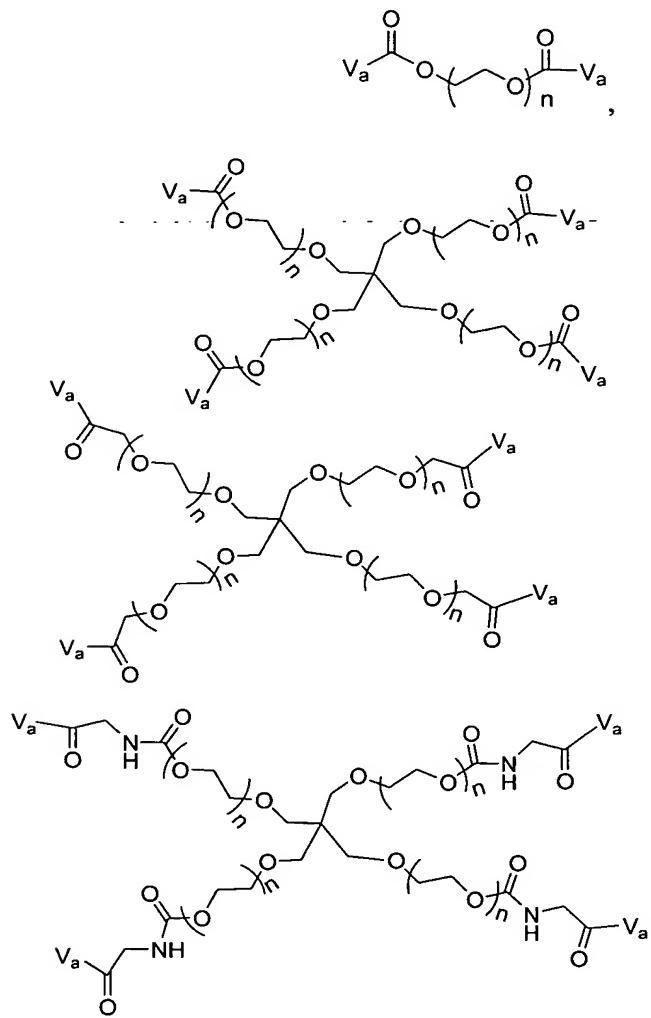
C₃₋₁₂ branched alkyls, C₃₋₈ cycloalkyls, C₁₋₆ substituted alkyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, C₁₋₆ alkenyls, C₃₋₁₂ branched alkenyls, C₁₋₆ alkynyls, C₃₋₁₂ branched alkynyls, C₁₋₆ heteroalkyls, substituted C₁₋₆ hetero-

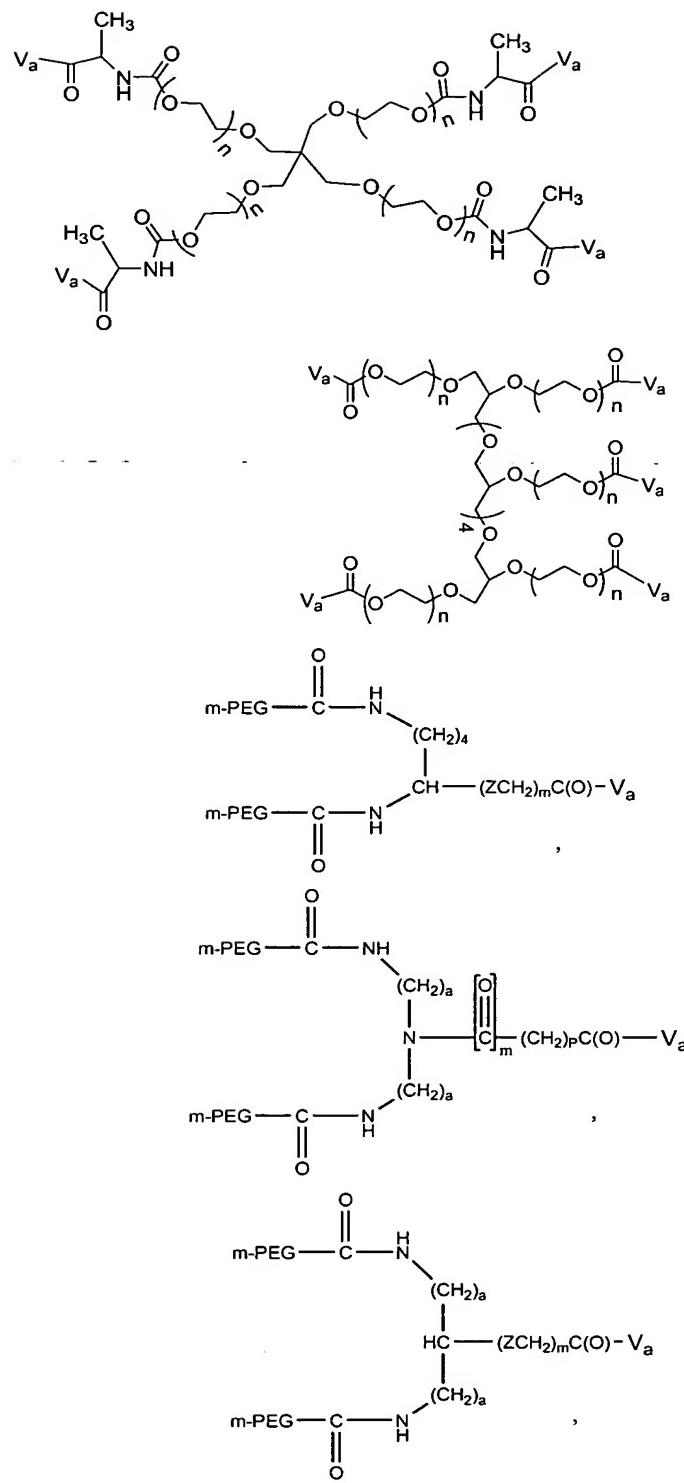
alkyls, C₁₋₆ alkoxyalkyl, phenoxyalkyl and C₁₋₆ heteroalkoxys.

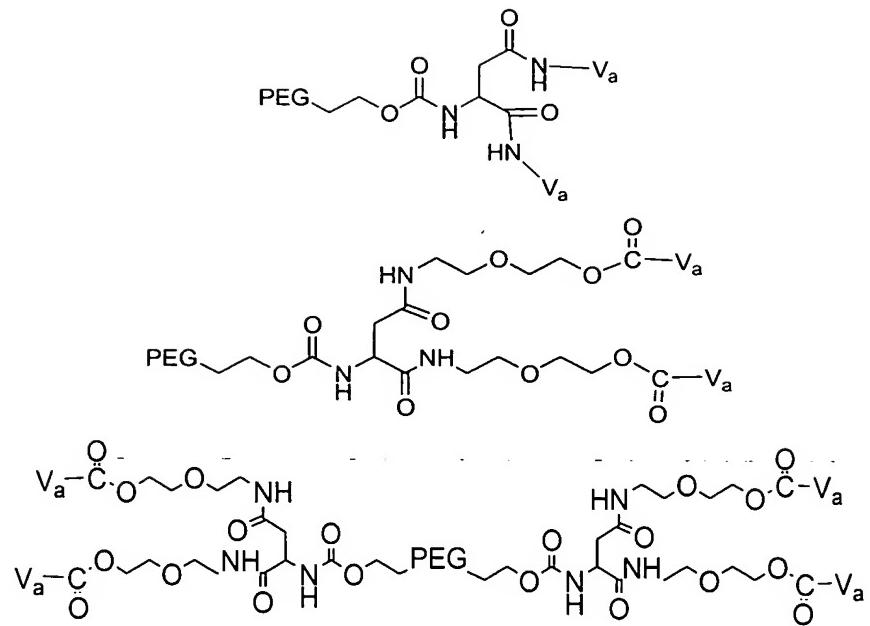
22. The compound of claim 21, wherein x is a positive integer such that the poly portion has a number average molecular weight of from about 2,000 to about 100,000 daltons.

23. The compound of claim 21, wherein x is a positive integer such that the poly portion has a number average molecular weight of from about 20,000 to about 40,000 daltons.

5 24. A compound selected from the group consisting of:

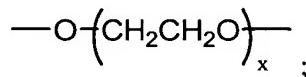






wherein:

5 PEG is



(a) is an integer of from about 1 to about 5;

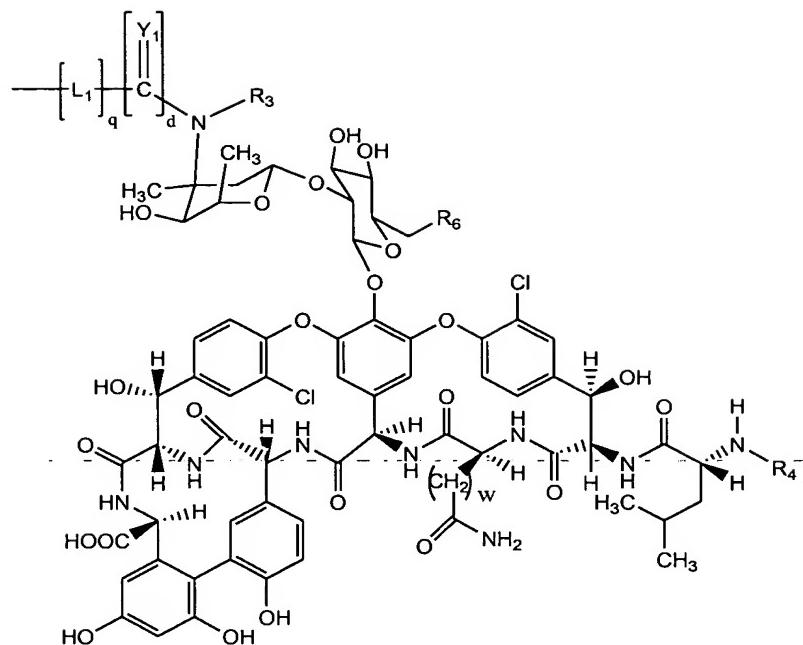
Z is O, NR₈, S, SO or SO₂; where R₈ is H, C₁₋₈ alkyl, C₁₋₈ branched alkyl, C₁₋₈ substituted alkyl, aryl or aralkyl;

10 (m) is 0 or 1;

(p) is a positive integer;

x is 10 to 2,300; and

V_a is a moiety of the formula:



wherein:

Y_1 is O;

L_1 is a bifunctional linker;

5 R_3 and R_4 are each independently hydrogen or CH_3 ;

R_6 is OH or NH-aryl;

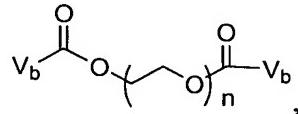
q is 0-2;

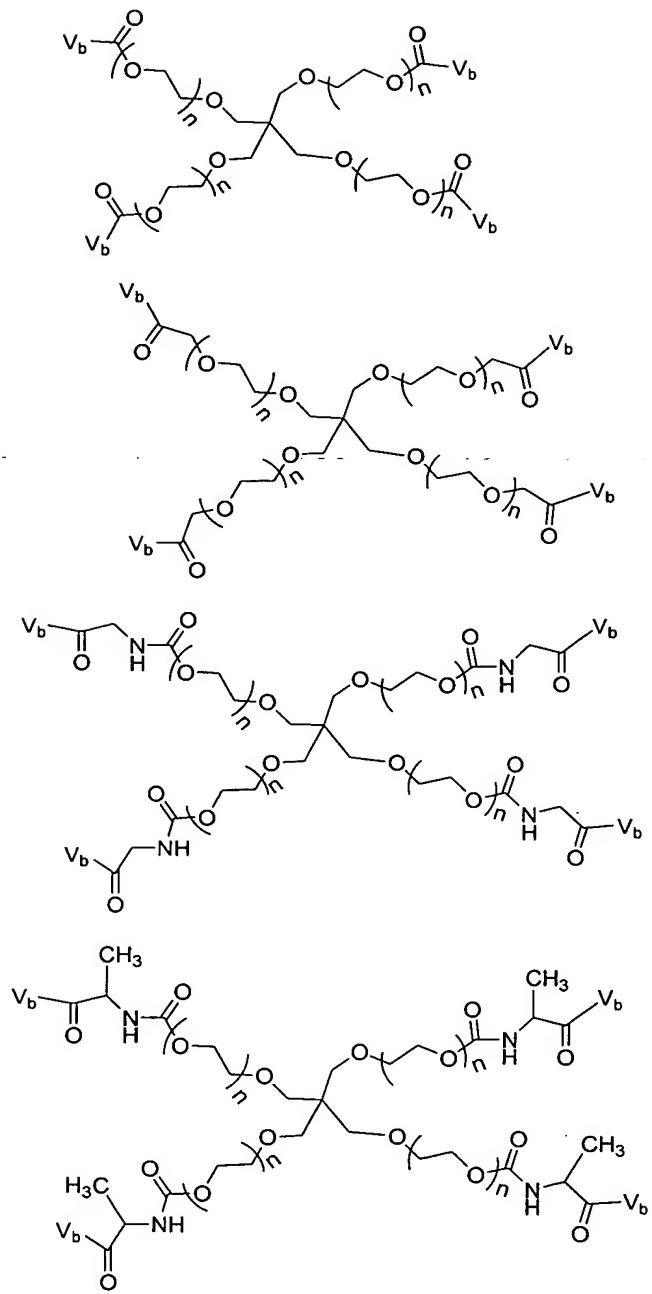
d is 0 or 1; and

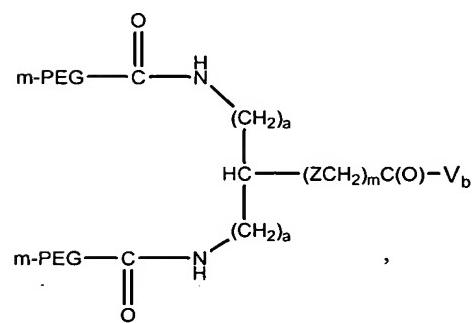
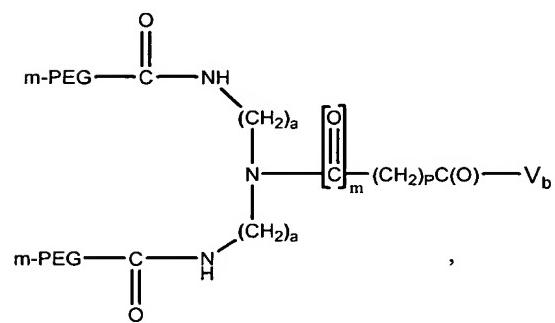
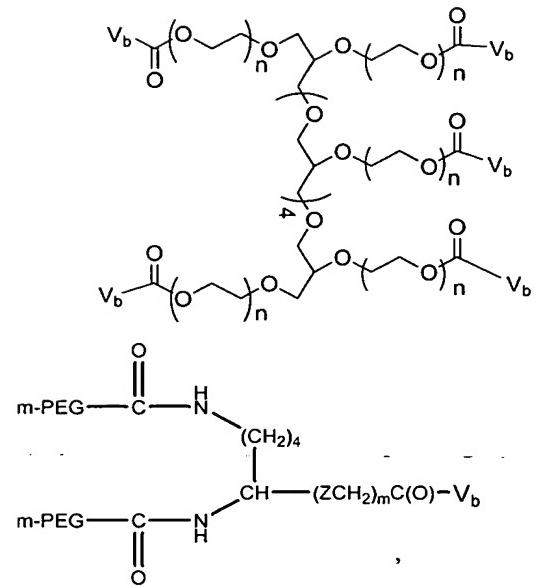
w is 1.

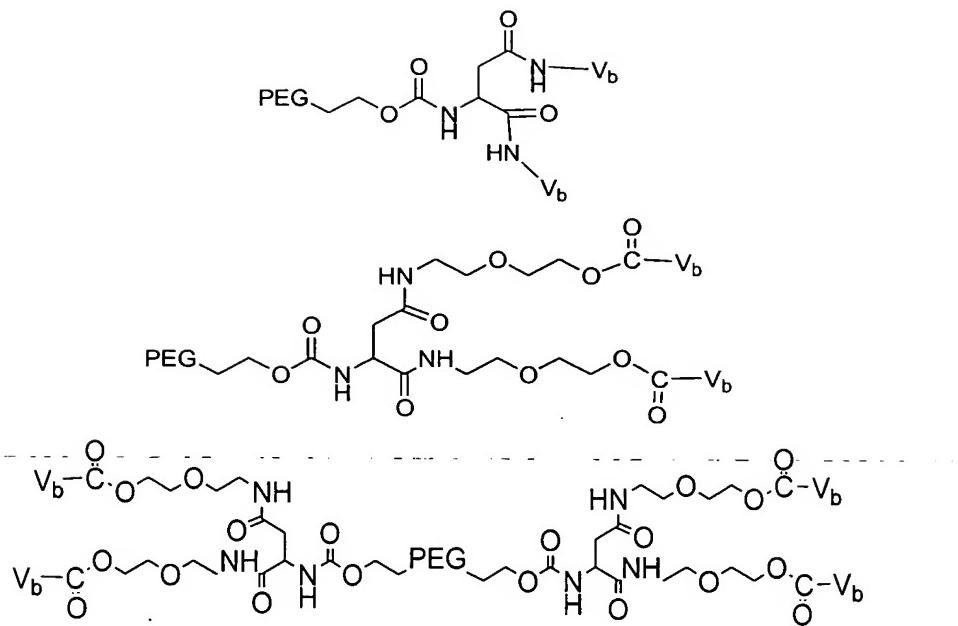
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25. A compound selected from the group consisting of:



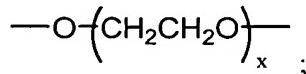






wherein:

5 PEG is



(a) is an integer of from about 1 to about 5;

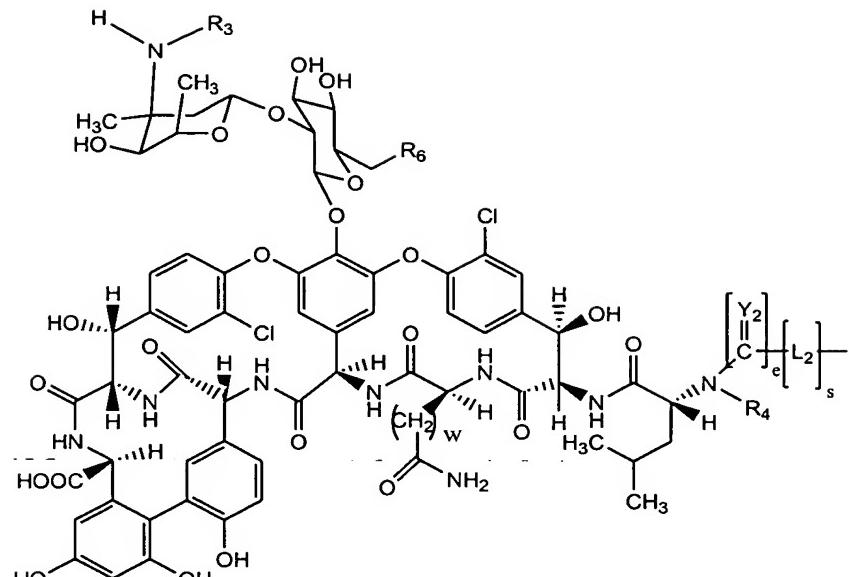
Z is O, NR₈, S, SO or SO₂; where R₈ is H, C₁₋₈ alkyl, C₁₋₈ branched alkyl, C₁₋₈ substituted alkyl, aryl or aralkyl;

10 (m) is 0 or 1;

(p) is a positive integer, from about 1 to about 6;

x is 10 to 2,300, and

V_b is:



wherein:

Y_2 is O;

L_2 is a bifunctional linker

5 R_3 and R_4 are each independently hydrogen or CH_3 ;

R_6 is OH or NH-aryl;

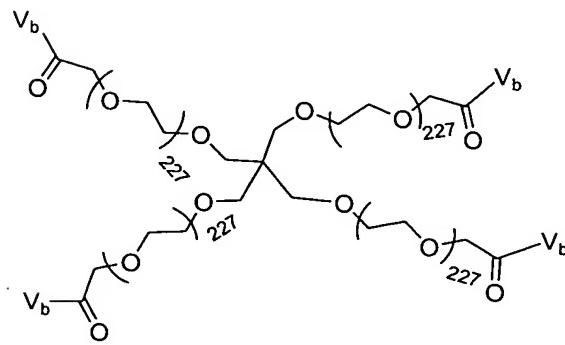
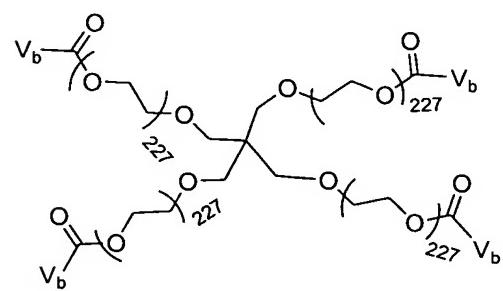
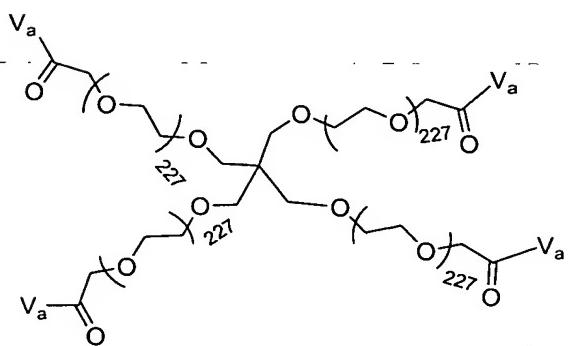
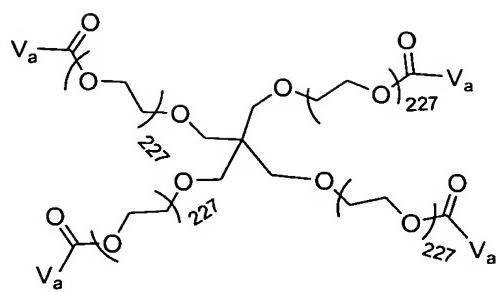
s is 0-2;

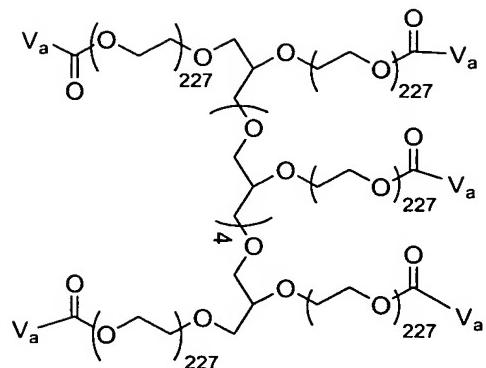
e is 0 or 1; and

w is 1.

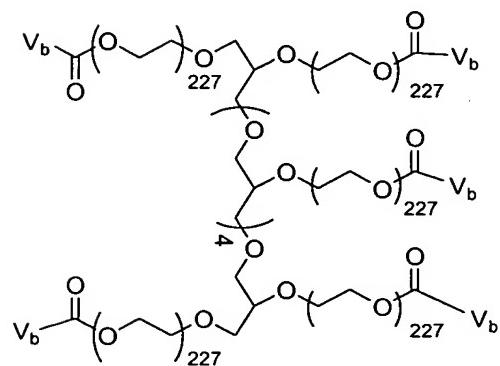
10

26. A compound of claim 1 having the formula:

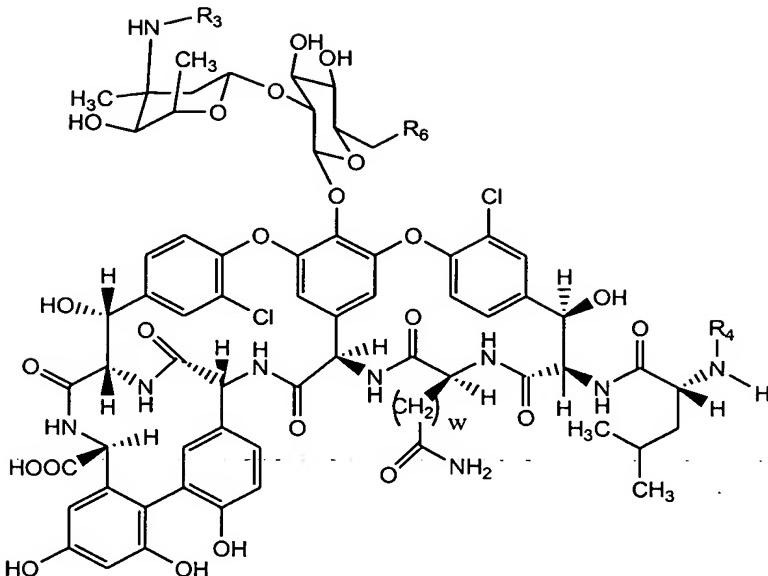




and



27. A process for preparing a conjugate of claim 1 comprising, reacting a vancomycin compound of the formula:



wherein

- R₃ and R₄ are independently selected from the group consisting of hydrogen, C₁₋₆ alkyls, C₃₋₁₂ branched alkyls, C₃₋₈ cycloalkyls, C₁₋₆ substituted alkyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, C₁₋₆ heteroalkyls, substituted C₁₋₆ hetero-alkyls, C₁₋₆ alkoxyalkyl, phenoxyalkyl and C₁₋₆ heteroalkoxys;
- R₆ is OH, NH-aryl, NH-aralkyl, or NH-C₁₋₁₂ alkyl; and
- w is 1 or 2;
- 10 with a polymer residue containing at least one leaving group capable of reacting with the sugar amino group of said vancomycin compound in the presence of at least about a twenty-fold molar excess of triethylamine and a sufficient amount of dimethylformamide.
- 15 28. The process of claim 25 further comprising reacting said sugar amino conjugate with a second activated polymer residue containing at least one leaving group capable of reacting with the N-methyl-amino group of said conjugate in the presence of at least about a 5 fold molar excess of dimethylaminopyridine and a sufficient amount of a solvent mixture of dichloromethane and
- 20 dimethylformamide.

29. The process of claim 26, wherein said solvent mixture comprises about equal parts dichloromethane and dimethylformamide.

30. A method of treating a vancomycin susceptible disease in a mammal comprising administering an effective amount of a compound of claim 1, to a mammal in need of such treatment, whereby, the compound of claim 1 undergoes degradation and releases vancomycin or a vancomycin derivative *in vivo*.

31. A method of treating a vancomycin susceptible disease in a mammal comprising administering an effective amount of a compound of claim 24, to a mammal in need of such treatment, whereby, the compound of claim 24 undergoes degradation and releases vancomycin or a vancomycin derivative *in vivo*.

32. A method of treating a vancomycin susceptible disease in a mammal comprising administering to a mammal in need of such treatment, an effective amount of a combination of vancomycin or a pharmaceutically acceptable salt, solvate or hydrate thereof, and a compound of claim 1.

33. A kit comprising in separate containers in a single package, pharmaceutical compositions for use in combination to treat a vancomycin susceptible disease which comprises in one container a therapeutically effective amount of vancomycin or a pharmaceutically acceptable salt, solvate or hydrate thereof in a pharmaceutically acceptable carrier and in a second container a therapeutically effective amount of a compound of claim 1 or a pharmaceutically acceptable salt, solvate or hydrate thereof in a pharmaceutically acceptable carrier.